

Press release



Source:

https://www.boschmediaservice.hu/en/press_release/bosch_iaa_electromobility_semitrailers_2018_august_eng-66.html

09/03/2018

ID: 66

Bosch presents electromobility for semitrailers

Also as a retrofit solution

- Smart, electrified axle recuperates energy during braking
- Electric refrigerated trailer: significantly quieter, saving up to 9,000 liters of fuel, and thus also CO₂
- Electricity makes semitrailers independent: important step toward automated semitrailer parking

Bosch is electrifying semitrailers, and thus making electromobility possible for today's semitrucks. At the IAA Commercial Vehicles in Hannover, Bosch will be presenting an electrified axle that can be integrated into semitrailers. The idea behind it is to integrate an electrical machine into the semitrailer's axles, instead of simply allowing them to roll freely, as has been the case up to now. This means they can generate electricity during braking, and feed it into the trailer's power units. In the case of a refrigerated trailer, the saving can be as much as 10,000 euros a year. If the cooling unit is operated using the power generated in this way, Bosch calculates that it can save up to 9,000 liters of diesel a year. An electrical start and acceleration boost function can help save additional fuel. Any fuel saving also reduces CO₂ emissions. One further advantage, especially for deliveries by urban supermarkets, is that electric cooling units make significantly less noise than diesel-powered ones. Deliveries can thus be made early in the morning or late in the evening without disturbing the neighbors.

Robert Bosch Kft.
1103 Budapest,
Gyömrői út 104.
www.bosch.hu/en

Press information:
Dr. Ferenc Ficzeré
Head of communication
Bosch Group in Hungary

E-mail: ferenc.ficzere@hu.bosch.com
Phone.: + 36 1 879 8852
www.boschmediaservice.hu/en

“Bosch is making trucks’ rear axles electric and smart. Our electrification solution for trucks makes economic sense and shows how electromobility can work even in today’s trucks,” says Dr. Markus Heyn, member of the Robert Bosch GmbH board of management. In addition, the electrical axle is an important step toward automated trailer parking on logistics companies’ parking lots. Adding a powertrain to the axle means that the trailer can be shunted around the parking lot without a tractor.

Bosch offers this technology either for new trailers or as a retrofit solution. The potential demand is huge. In Europe alone, roughly a quarter of a million trailers with a gross vehicle weight of more than 10 metric tons are newly registered every year. One in five of these is equipped with a refrigeration unit.

Energy recuperation: passenger-car components work intermittently

In contrast to many other commercial-vehicle projects, Bosch engineers are relying on passenger-car parts for the electrified axle. For example, the SMG180 electric motor already features in hundreds of thousands of hybrid and electric cars worldwide, including the German postal service’s StreetScooters. Unlike in electric cars, the motors in the electrified axle work only intermittently, starting only if they can recuperate energy. This may be the case when driving downhill or braking, for example. As a result of this recuperation, which is an established technology in passenger cars, energy is no longer lost when braking, but is stored in a high-voltage battery. The electricity can be fed into the motors during hill starts, or power the trailer’s refrigeration unit, and in this way save a lot of fuel. Such demand-driven application has a further advantage: since the electric motors are inactive most of the time, recuperating energy or providing assistance when starting or on ascents for only a few seconds or minutes every hour, significantly less expensive production parts from passenger cars can be used in this trailer application. The motors are still powerful enough to move the trailer or to provide start assistance to construction vehicles.

Automated parking at the depot: electric motor is an invaluable helper

In addition, the electrified axle is an invaluable helper for automated driving – only when a motor is installed in the axle can a trailer maneuver independently at the depot. “Bosch’s electrified axle makes trailers independent. By electrifying trailers, Bosch is taking an important step toward automated parking at freight depots,” Heyn says. They also facilitate remote-controlled electric driving on private property such as freight companies’ premises or at ports. Up to now, truckers have had to do this task themselves, or a special trailer-shunting unit has done it for them. Now, however, the electric motor makes the trailer into an independent vehicle that can travel short distances. With the help of additional sensors attached to the trailer and installed at various points in the depot, it will be possible for goods trailers to park themselves.

BOSCH AT THE IAA COMMERCIAL VEHICLES 2018

- **Press conference: Wednesday, September 19, 2018**, from 1:20 p.m. to 1:40 p.m., with [Dr. Rolf Bulander, chairman of the Mobility Solutions business sector](#), and [Dr. Markus Heyn, Member of the Board of Management, Robert Bosch GmbH](#), at the Bosch booth A01 in Hall 16.
- **Follow the Bosch IAA 2018** highlights on www.bosch-iaa.com or on Twitter: [#BoschIAA](#)
- **Panels with Bosch experts at the New Mobility World Forum, pavilion 11, section D:**
 - **Wednesday, September 26, 10:00 a.m. - 11:00 a.m.:**
Presentation “The enhancement of automated driving (and AI)” with Johannes-Jörg Rüger, head of the Commercial Vehicle and Off-Road unit
 - **Thursday, September 27, 11:15 a.m. - 12:15 p.m.:** Panel discussion “Aftermarket - more than just repair and maintenance”
 - **Thursday, September 27, 2:30 p.m. - 3:30 p.m.:** Presentation and discussion “Masters of digitalization: digitizing businesses and mobility ecosystems” with Dr. Rainer Kallenbach, president of the Connected Mobility Solutions division

More information:

dr. Ferenc Ficzere
phone: +36 1 879-8852

Inga Ehret
phone: +49 711 811-16476

Basic information:

Mobility Solutions is the largest Bosch Group business sector. In 2017, its sales came to 47.4 billion euros, or 61 percent of total group sales. This makes the Bosch Group one of the leading automotive suppliers. The Mobility Solutions business sector pursues a vision of mobility that is accident-free, emissions-free, and stress-free, and combines the group's expertise in the domains of automation, electrification, and connectivity. For its customers, the outcome is integrated mobility solutions. The business sector's main areas of activity are injection technology and powertrain peripherals for internal-combustion engines, diverse solutions for powertrain electrification, vehicle safety systems, driver-assistance and automated functions, technology for user-friendly infotainment as well as vehicle-to-vehicle and vehicle-to-infrastructure communication, repair-shop concepts, and technology and services for the automotive aftermarket. Bosch is synonymous with important automotive innovations, such as electronic engine management, the ESP anti-skid system, and common-rail diesel technology.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,000 associates worldwide (as of December 31, 2017). The company generated sales of 78.1 billion euros in 2017. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected manufacturing. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to deliver innovations for a connected life. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiary and regional companies in 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 125 locations across the globe, Bosch employs some 64,500 associates in research and development.

Additional information is available online at www.bosch.hu, iot.boschblog.hu, www.bosch.com, www.iot.bosch.com, www.bosch-press.com, www.twitter.com/BoschPresse